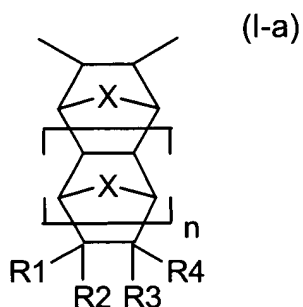


Amendments to the Claims

1. (currently amended) A polymer comprising a repeating unit represented by the formula:

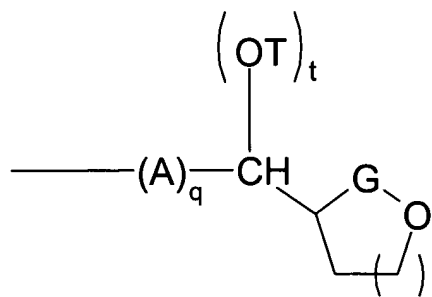


wherein in Formula (I-a):

X is O, S, $-\text{CH}_2-$ or $-\text{CH}_2\text{CH}_2-$;

n is an integer from 0 to 5 inclusive;

each R1 to R4 independently represents hydrogen, a linear or branched (C_1 to C_{20}) alkyl, or a linear or branched (C_1 to C_{20}) haloalkyl, subject to the proviso that at least one of R1 to R4 is a group represented by the formula:



wherein: G is $-\text{SO}_2-$ or $-\text{C}(\text{O})-$; T is H or $-\text{Si}(\text{R}^{20})_3$; t is 0 or 1;

j is 1 or 2; q is 0 or 1; and A is a spacer moiety represented by $-(\text{CH}_2)_m-$,

$-(\text{CH}_2)_m\text{O}-$, $-(\text{CH}_2)_m\text{O}(\text{CH}_2)_m-$, $\text{O}(\text{CH}_2)_m-$,

$-(\text{CH}_2)_m\text{NR}^9(\text{CH}_2)_m-$, $-(\text{C}(\text{R}^{10})_2)_m(\text{C}(\text{R}^{10})_2)_m\text{O}(\text{C}(\text{R}^{11})_2)_a-$,

$-(\text{CR}^{11})_2-\text{CH}-(\text{CH}_2)_a\text{OR}^{12}$ or $-\text{CH}(\text{OH})\text{CH}-(\text{CH}_2)_a\text{OR}^{12}$,

wherein: each R^9 independently is (C₁ to C₅) alkyl; each R^{10} independently is hydrogen, halogen, (C₁ to C₅) alkyl, or (C₁ to C₅) haloalkyl; R^{11} independently is hydrogen or halogen; each R^{12} independently is hydrogen, (C₁ to C₁₀) alkyl or (C₁ to C₅) haloalkyl; each R^{20} independently is a (C₁ to C₄) alkyl; each a independently is 2 to 6; and each m independently is 0 to 4, the polymer comprising only norbornene-type repeating units.

2. (original) The polymer of claim 1 wherein G is $-C(O)-$, T is $-Si(CH_3)_3$, t is 1, n is 0, q is 0 and j is 1.
3. (original) The polymer of claim 2 wherein X is $-CH_2-$, and R₁, R₂ and R₃ are each hydrogen.
4. (original) The polymer of claim 1 wherein G is $-SO_2-$, T is H, t is 1, n is 0, q is 0 and j is 2.
5. (original) The polymer of claim 4 wherein X is $-CH_2-$, and R₁, R₂ and R₃ are each hydrogen.
6. (cancelled).

norbornene-type repeating unit represented by the following formula (II-a):



wherein in Formula (II-a):

X' is O, S, -CH₂- or -CH₂CH₂-;

n' is an integer from 0 to 5 inclusive; and

each R5 to R8 independently is selected from: hydrogen; linear or branched (C₁ to C₂₀)

alkyl; linear or branched (C₁ to C₂₀) haloalkyl; substituted or unsubstituted (C₄-C₁₂)cycloalkyl; substituted or unsubstituted (C₁ to C₁₀) hydroxyalkyl;
$$-(\text{CH}_2)_b\text{C}(\text{CF}_3)_2\text{OR}^{13}; -(\text{CH}_2)_b\text{C}(\text{O})\text{OR}^{14}; -(\text{CH}_2)_b\text{OR}^{14}; -(\text{CH}_2)_b\text{OC}(\text{O})\text{R}^{14}; -(\text{CH}_2)_b\text{C}(\text{O})\text{R}^{14}; -$$
$$(\text{CH}_2)_b\text{OC}(\text{O})\text{OR}^{14}; -(\text{CH}_2)_b\text{C}(\text{O})\text{OR}^{15}; -(\text{CH}_2)_b\text{Si}(\text{R}^{16})_3;$$
$$-(\text{CH}_2)_b\text{Si}(\text{OR}^{16})_3; -(\text{CH}_2)_b\text{NR}^{17}\text{SO}_2\text{R}^{18}; \text{ or } -(\text{CH}_2)_b\text{SO}_2\text{NR}^{17}\text{R}^{18}.$$

wherein: b is 0 to 4; each R¹³ independently is selected from hydrogen, linear or branched (C₁-C₁₀) alkyl, or linear or branched (C₁-C₁₀) haloalkyl; each R¹⁴ is selected from hydrogen, linear or branched (C₁ to C₁₀) alkyl, or substituted or unsubstituted (C₄-C₈) cycloalkyl; R¹⁵ is an acid labile group; each R¹⁶ independently is selected from hydrogen and (C₁ to C₅) alkyl; each R¹⁷ independently is selected from hydrogen, linear or branched (C₁-C₅) haloalkyl, linear or branched tri(C₁-C₁₀) alkylsilyl, -C(O)CF₃, -C(O)OR¹⁹, or -OC(O)OR¹⁹; each R¹⁸ independently is selected from hydrogen, linear or branched (C₁-C₁₀) alkyl, linear or branched (C₁-C₅) haloalkyl, -OR¹³, -C(O)R¹³, substituted or unsubstituted (C₃-C₈) cycloalkyl, substituted or unsubstituted cyclic esters containing 2 to 8 carbon atoms, substituted or unsubstituted cyclic ketones containing 4 to 8 carbon atoms, substituted or unsubstituted cyclic ethers or cyclic diethers containing 4 to 8 carbon atoms; each R¹⁹ independently is selected from linear or branched (C₁-C₁₀) alkyl, or linear or branched (C₁-C₁₀) haloalkyl; R5 and R6 and/or R7 and R8 independently taken together

can form a (C₁-C₅) alkylidenyl group or a spiral anhydride group; R₆ and R₇ taken together with the two ring carbon atoms to which they are attached can form a cyclic (C₃ to C₆) anhydride group, a cyclic (C₃ to C₆) sulfonamide group, or a cyclic (C₃ to C₆) sultone group.

8. (original) The polymer of claim 7 wherein X' is -CH₂-, n' is 0, each of R₅, R₆ and R₇ is H, and R₈ is -(CH₂)_bC(O)OR¹⁴, wherein b is 0 and R¹⁴ is t-butyl.

9. (original) The polymer of claim 8 wherein X is -CH₂-, n is 0, each of R₁, R₂ and R₃ is H, q is 0, j is 2, T is H, t is 1, and G is -SO₂-.

10. (original) The polymer of claim 7 wherein X' is -CH₂-, n' is 0, each of R₅, R₆ and R₇ is H, and R₈ is -(CH₂)_bC(O)OR¹⁴, wherein b is 0 and R¹⁴ is 1-methyl cyclopentyl.

11. (original) The polymer of claim 10 wherein X is -CH₂-, n is 0, each of R₁, R₂ and R₃ is H, q is 0, j is 1, T is -Si(R²⁰)₃ wherein each R²⁰ is methyl, t is 1, and G is -C(O)-.

12. (original) The polymer of claim 11 wherein the polymer further comprises another repeating unit, the another repeating unit being represented by Formula (II) wherein X' is -CH₂-, n' is 0, each of R₅, R₆ and R₇ is H, and R₈ is -(CH₂)_bC(CF₃)₂OR¹³ wherein b is 1 and R¹³ is hydrogen.

13. (original) A photoresist composition comprising the polymer of claim 1.

14. (original) A photoresist composition comprising the polymer of claim 7.

15. (original) A process for generating an image on a substrate, comprising:

- (a) coating the substrate with a photoresist composition comprising the polymer of claim 1;
- (b) image wise exposing the film to radiation; and

(c) developing the image.

16. (original) The process of claim 15 wherein the radiation has a wavelength of about 157 nm.

17. (original) The process of claim 15 wherein the radiation has a wavelength of about 193 nm.

18. (original) A process for generating an image on a substrate, comprising:
(a) coating the substrate with a photoresist composition comprising the polymer of claim 7;

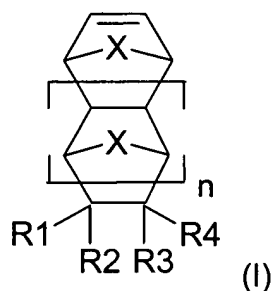
(b) image wise exposing the film to radiation; and

(c) developing the image.

19. (original) The process of claim 18 wherein the radiation has a wavelength of about 157 nm.

20. (original) The process of claim 18 wherein the radiation has a wavelength of about 193 nm.

21. (currently amended) A compound represented by the formula:



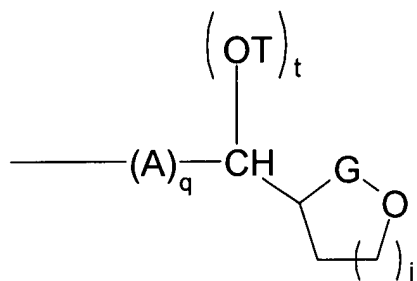
wherein in Formula (I):

X is O, S, -CH₂- or -CH₂CH₂-;

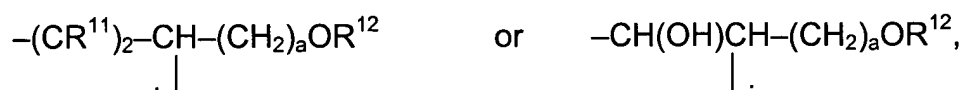
n is an integer from 0 to 5 inclusive;

each R1 to R4 independently represents hydrogen, a linear or branched (C₁ to C₂₀) alkyl,

or a linear or branched (C₁ to C₂₀) haloalkyl, subject to the proviso that at least one of R₁ to R₄ is a group represented by the formula:



wherein: G is ---C(O)--- or $\text{---SO}_2\text{---}$; T is H or $\text{---Si(R}^{20})_3$ wherein R²⁰ is H or (C₁ to C₄) alkyl; t is 0 or 1; j is 1 or 2; q is 0 or 1; and A is a spacer moiety represented by $\text{---(CH}_2)_m\text{---}$, $\text{---(CH}_2)_m\text{O---}$, $\text{---(CH}_2)_m\text{O(CH}_2)_m\text{---}$, $\text{O(CH}_2)_m\text{---}$, $\text{---(CH}_2)_m\text{NR}^9\text{(CH}_2)_m\text{---}$, $\text{---(C(R}^{10})_2)_m\text{(C(R}^{10})_2)_m\text{O(C(R}^{11})_2)_a\text{---}}$,



wherein: each R⁹ independently is (C₁ to C₅) alkyl; each R¹⁰ independently is hydrogen, halogen, (C₁ to C₅) alkyl, or (C₁ to C₅) haloalkyl; each R¹¹ independently is hydrogen or halogen; each R¹² independently is hydrogen, (C₁ to C₁₀) alkyl or (C₁ to C₅) haloalkyl; each a independently is 2 to 6; and each m independently is 0 to 4;

with the proviso that when G is ---C(O)--- , T is $\text{---Si(R}^{20})_3$.

22. (original) The compound of claim 21 wherein G is ---C(O)--- , T is $\text{---Si(CH}_3)_3$, t is 1, n is 0, q is 0 and j is 1.

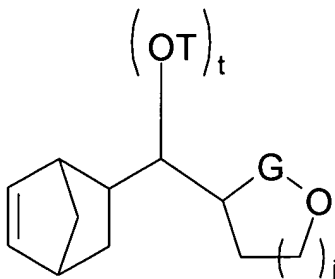
23. (original) The compound of claim 22 wherein X is $\text{---CH}_2\text{---}$, and R₁, R₂ and R₃ are each hydrogen.

24. (original) The compound of claim 21 wherein G is $\text{---SO}_2\text{---}$, T is H, t is 1, n is 0, q is 0, and j is 2.

25. (original) The compound of claim 24 wherein X is $\text{---CH}_2\text{---}$, and R₁, R₂ and R₃

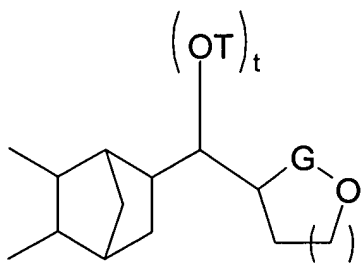
are each hydrogen.

26. (original) A compound represented by the formula



wherein G is $-C(O)-$ or SO_2- , T is H or $-Si(CH_3)_3$, t is 1, and j is 1 or 2.

27. (new) A polymer comprising a repeating unit represented by the formula



wherein: G is $-SO_2-$ or $-C(O)-$; T is H or $-Si(R^{20})_3$, each R^{20} independently is $(C_1 \text{ to } C_4)$ alkyl; t is 1; and j is 1 or 2, the polymer comprising only norbornene-type repeating units.